HIGHWAY WORK PROPOSAL

Wisconsin Department of Transportation
06/2017 s.66.0901(7) Wis. Stats

Proposal Number: 026

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Northwest Region Wic	1000-18-33	N/A	Sfy 2020 Chip Seals - North; Northwest Region - Various Highways	VAR HWY

This proposal, submitted by the undersigned bidder to the Wisconsin Department of Transportation, is in accordance with the advertised request for proposals. The bidder is to furnish and deliver all materials, and to perform all work for the improvement of the designated project in the time specified, in accordance with the appended Proposal Requirements and Conditions.

Proposal Guaranty Required: $75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: December 10, 2019 Time (Local Time): 9:00 am	Firm Name, Address, City, State, Zip Code SAMPLE NOT FOR BIDDING PURPOSES
Contract Completion Time August 31, 2020	
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is exempt from federal oversight.

This certifies that the undersigned bidder, duly sworn, is an authorized representative of the firm named above; that the bidder has examined and carefully prepared the bid from the plans, Highway Work Proposal, and all addenda, and has checked the same in detail before submitting this proposal or bid; and that the bidder or agents, officer, or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal bid.

Do not sign, notarize, or submit this Highway Work Proposal when submitting an electronic bid on the Internet.

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)	(Bidder Signature)
(Print or Type Name, Notary Public, State Wisconsin)	(Print or Type Bidder Name)
(Date Commission Expires)	(Bidder Title)

Notary Seal

For Department Use Only

Type of Work:
Crack Filling, Chip Seal, Scrub Seal, Fog Seal Pavement

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

The bidder, signing and submitting this proposal, agrees and declares as a condition thereof, to be bound by the following conditions and requirements.

If the bidder has a corporate relationship with the proposal design engineering company, the bidder declares that it did not obtain any facts, data, or other information related to this proposal from the design engineering company that was not available to all bidders.

The bidder declares that they have carefully examined the site of, and the proposal, plans, specifications and contract forms for the work contemplated, and it is assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the specifications, special provisions and contract. It is mutually agreed that submission of a proposal shall be considered conclusive evidence that the bidder has made such examination.

The bidder submits herewith a proposal guaranty in proper form and amount payable to the party as designated in the advertisement inviting proposals, to be retained by and become the property of the owner of the work in the event the undersigned shall fail to execute the contract and contract bond and return the same to the office of the engineer within fourteen (14) days after having been notified in writing to do so; otherwise to be returned.

The bidder declares that they understand that the estimate of quantities in the attached schedule is approximate only and that the attached quantities may be greater or less in accordance with the specifications.

The bidder agrees to perform the said work, for and in consideration of the payment of the amount becoming due on account of work performed, according to the unit prices bid in the following schedule, and to accept such amounts in full payment of said work.

The bidder declares that all of the said work will be performed at their own proper cost and expense, that they will furnish all necessary materials, labor, tools, machinery, apparatus, and other means of construction in the manner provided in the applicable specifications and the approved plans for the work together with all standard and special designs that may be designed on such plans, and the special provisions in the contract of which this proposal will become a part, if and when accepted. The bidder further agrees that the applicable specifications and all plans and working drawings are made a part hereof, as fully and completely as if attached hereto.

The bidder, if awarded the contract, agrees to begin the work not later than ten (10) days after the date of written notification from the engineer to do so, unless otherwise stipulated in the special provisions.

The bidder declares that if they are awarded the contract, they will execute the contract agreement and begin and complete the work within the time named herein, and they will file a good and sufficient surety bond for the amount of the contract for performance and also for the full amount of the contract for payment.

The bidder, if awarded the contract, shall pay all claims as required by Section 779.14, Statutes of Wisconsin, and shall be subject to and discharge all liabilities for injuries pursuant to Chapter 102 of the Statutes of Wisconsin, and all acts amendatory thereto. They shall further be responsible for any damages to property or injury to persons occurring through their own negligence or that of their employees or agents, incident to the performance of work under this contract, pursuant to the Standard Specifications for Road and Bridge Construction applicable to this contract.

In connection with the performance of work under this contract, the contractor agrees to comply with all applicable state and federal statutes relating to non-discrimination in employment. No otherwise qualified person shall be excluded from employment or otherwise be subject to discrimination in employment in any manner on the basis of age, race, religion, color, gender, national origin or ancestry, disability, arrest or conviction record (in keeping with s.111.32), sexual orientation, marital status, membership in the military reserve, honesty testing, genetic testing, and outside use of lawful products. This provision shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor further agrees to ensure equal opportunity in employment to all applicants and employees and to take affirmative action to attain a representative workforce.

The contractor agrees to post notices and posters setting forth the provisions of the nondiscrimination clause, in a conspicuous and easily accessible place, available for employees and applicants for employment.

If a state public official (section 19.42, Stats.) or an organization in which a state public official holds at least a 10% interest is a party to this agreement, this contract is voidable by the state unless appropriate disclosure is made to the State of Wisconsin Ethics Board.

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

(1) Obtain bidding proposals as specified in section 102 of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:

1. Electronic bid on the internet.
2. Electronic bid on a printout with accompanying diskette or CD ROM.
3. Paper bid under a waiver of the electronic submittal requirements.

(2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.

(3) The department will provide bidding information through the department's web site at:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 PM local time on the Thursday before the letting. Check the department's web site after 5:00 PM local time on the Thursday before the letting to ensure all addenda have been accounted for before preparing the bid. When bidding using methods 1 and 2 above, check the Bid Express™ on-line bidding exchange at http://www.bidx.com/ after 5:00 PM local time on the Thursday before the letting to ensure that the latest schedule of items Expedite file (*.ebs or *.00x) is used to submit the final bid.

(4) Interested parties can subscribe to the Bid Express™ on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

Info Tech Inc.
5700 SW 34th Street, Suite 1235
Gainesville, FL 32608-5371
email: mailto:customer.support@bidx.com

(5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, 4th floor, 4822 Madison Yards Way, Madison, WI, during regular business hours.

(7) Addenda posted after 5:00 PM on the Thursday before the letting will be emailed to the eligible bidders for that proposal. All eligible bidders shall acknowledge receipt of the addenda whether they are bidding on the proposal or not. Not acknowledging receipt may jeopardize the awarding of the project.

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

1. Have a properly executed annual bid bond on file with the department.

2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.

(2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:

1. Download the latest schedule of items reflecting all addenda from the Bid Express™ web site.
2. Use Expedite™ software to enter a unit price for every item in the schedule of items.
3. Submit the bid according to the requirements of Expedite™ software and the Bid Express™ web site. Do not submit a bid on a printout with accompanying diskette or CD ROM or a paper bid. If the bidder does submit a bid on a printout with accompanying diskette or a paper bid in addition to the internet submittal, the department will disregard the internet bid.
4. Submit the bid before the hour and date the Notice to Contractors designates.
5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.

(3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

B.2 On a Printout with Accompanying Diskette or CD ROM

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

Use Expedite ™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.

(2) Staple an 8 1/2 by 11 inch printout of the Expedite™ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal, not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

(3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.

(4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.

(5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.

3. The diskette or CD ROM is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

(1) The bidder may request a waiver of the electronic submittal requirements. Submit a written request for a waiver in lieu of bids submitted on the internet or on a printout with accompanying diskette or CD ROM. Use the waiver that was included with the paper bid document sent to the bidder or type up a waiver on the bidder's letterhead. The department will waive the electronic submittal requirements for a bidding entity (individual, partnership, joint venture, corporation, or limited liability company) for up to 4 individual proposals in a calendar year. The department may allow additional waivers for equipment malfunctions.

(2) Submit a schedule of items on paper conforming to section 102 of the standard specifications. The department charges the bidder a $75 administrative fee per proposal, payable at the time and place the department designates for receiving bids, to cover the costs of data entry. The department will accept a check or money order payable to: "Wisconsin, Dept. of Transportation."

(3) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The bidder fails to provide the written request for waiver of the electronic submittal requirements.
2. The bidder fails to pay the $75 administrative fee before the time the department designates for the opening of bids unless the bidder requests on the waiver that they be billed for the $75.
3. The bidder exceeds 4 waivers of electronic submittal requirements within a calendar year.

(4) In addition to the reasons specified in section 102 of the standard specifications, the department may refuse to issue bidding proposals for future contracts to a bidding entity that owes the department administrative fees for a waiver of electronic submittal requirements.

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

Proposal Number	Project Number	Letting Date
Name of Principal		
Name of Surety	State in Which Surety is Organized	

We, the above-named Principal and the above-named Surety, are held and firmly bound unto the State of Wisconsin in the sum equal to the Proposal Guaranty for the total bid submitted for the payment to be made; we jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. The condition of this obligation is that the Principal has submitted a bid proposal to the State of Wisconsin acting through the Department of Transportation for the improvement designated by the Proposal Number and Letting Date indicated above.

If the Principal is awarded the contract and, within the time and manner required by law after the prescribed forms are presented for signature, enters into a written contract in accordance with the bid, and files the bond with the Department of Transportation to guarantee faithful performance and payment for labor and materials, as required by law, or if the Department of Transportation shall reject all bids for the work described, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. In the event of failure of the Principal to enter into the contract or give the specified bond, the Principal shall pay to the Department of Transportation **within 10 business days of demand** a total equal to the Proposal Guaranty as liquidated damages; the liability of the Surety continues for the full amount of the obligation as stated until the obligation is paid in full.

The Surety, for value received, agrees that the obligations of it and its bond shall not be impaired or affected by any extension of time within which the Department of Transportation may accept the bid; and the Surety does waive notice of any such extension.

IN WITNESS, the Principal and Surety have agreed and have signed by their proper officers and have caused their corporate seals to be affixed this date: **(DATE MUST BE ENTERED)**

PRINCIPAL

(Company Name) **(Affix Corporate Seal)**

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Name of Surety) **(Affix Seal)**

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State of Wisconsin)

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State of Wisconsin)

(Date Commission Expires)

Notary Seal

IMPORTANT: A certified copy of Power of Attorney of the signatory agent must be attached to the bid bond.

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

Time Period Valid (From/To)
Name of Surety
Name of Contractor
Certificate Holder Wisconsin Department of Transportation

This is to certify that an annual bid bond issued by the above-named Surety is currently on file with the Wisconsin Department of Transportation.

This certificate is issued as a matter of information and conveys no rights upon the certificate holder and does not amend, extend or alter the coverage of the annual bid bond.

Cancellation: Should the above policy be cancelled before the expiration date, the issuing surety will give thirty (30) days written notice to the certificate holder indicated above.

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

Section 66.0901(7), Wisconsin Statutes, provides that as a part of the proposal, the bidder also shall submit a list of the subcontractors the bidder proposes to contract with and the class of work to be performed by each. In order to qualify for inclusion in the bidder's list a subcontractor shall first submit a bid in writing, to the general contractor at least 48 hours prior to the time of the bid closing. The list may not be added to or altered without the written consent of the municipality. A proposal of a bidder is not invalid if any subcontractor and the class of work to be performed by the subcontractor has been omitted from a proposal; the omission shall be considered inadvertent or the bidder will perform the work personally.

No subcontract, whether listed herein or later proposed, may be entered into without the written consent of the Engineer as provided in Subsection 108.1 of the Standard Specifications.

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.

4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.

7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR-1273 - "Required Contract Provisions Federal Aid Construction Contracts," without

modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

(1) The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1000-18-33, SFY 2020 Chip Seals – North, Northwest Region - Various Highways, Northwest Region Wide, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2020 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.

100-005 (20190618)

2. Scope of Work.

The work under this contract shall consist of crack filling, chip sealing, scrub sealing, fog sealing, pavement marking, traffic control, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to do so.

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the approved start date.

To revise the start date, submit a written request to the engineer at least two weeks before the intended start date. The engineer will approve or deny that request based on the conditions cited in the request and its effect on the department's scheduled resources.

4. Traffic.

Coordinate the single-lane flagging operations in a manner which cause as little delay to the traveling public as possible.

Except as otherwise authorized by engineer, the maximum length of the single-lane work zone shall be no more than 1 mile.

Do not park or store equipment, vehicles, or construction materials within 30 feet of the edge of the traffic lane on any roadway during non-working hours.

Lane closures and flagging operations will only be allowed during daytime hours. Do not implement a lane closure during inclement weather or poor visibility.

Provide to the engineer, County Sheriff's Department, and the State Patrol District Headquarters responsible for that county with the current telephone number(s) which the contractor or their representative can be contacted at all times in the event a safety hazard develops.

Keep appropriate emergency officials informed of routes to provide emergency services. Utilize two-way radios, and an additional flag person or persons, within lane closure areas, in order to positively direct, control, and safeguard traffic through the work zone.

All contractor vehicles or equipment operating within the project limits shall be equipped with and have flashing yellow lights operating.

The third flag person is required to be located at the area of the moving operation to safely guide traffic around the equipment and personnel working at the moving operation.

A flagger shall be at all side roads within the work zone.

All department owned signs that are removed by the contractor because of interference with construction operations shall, unless otherwise authorized by the engineer, be promptly replaced as directed by the engineer. At no time may stop signs be removed or moved without flag persons present.

Wisconsin Lane Closure System Advance Notification

Provide the following advance notification to the engineer for incorporation into the Wisconsin Lane Closure System (LCS).

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

Closure type with height, weight, or width restrictions (available width, all lanes in one direction less than 16 feet)	**MINIMUM NOTIFICATION**
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Detours	7 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction 16 feet or greater)	**MINIMUM NOTIFICATION**
Lane and shoulder closures	3 business days
Ramp closures	3 business days
Modifying all closure types	3 business days

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.

5. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From Noon Friday, May 22, 2020 until 6:00 AM, Tuesday, May 26, 2020 for Memorial Day;
- From Noon Thursday, July 2, 2020 until 6:00 AM. Monday, July 6, 2020 for Independence Day.

stp-107-005 (20050202)

6. Utilities.

This contract does not come under the provision of Administrative Rule Trans 220.

stp-107-066 (20080501)

Underground and overhead utility facilities are located within the project limits. There are no utility conflicts anticipated for this project.

Coordinate construction activities with a call to Diggers Hotline or a direct call to the underground facilities in the area, as required per state statutes. Use caution to maintain the integrity of utilities. Coordinate with the engineer to adjust plans as needed to avoid any unanticipated utility conflicts.

7. Railroad Insurance and Coordination - Wisconsin Great Northern.

A Description

Comply with standard spec 107.17 for all work affecting Wisconsin Great Northern property and any existing tracks.

A.1 Railroad Insurance Requirements

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Wisconsin Great Northern.

Notify evidence of the required coverage, and duration to Greg Vreeland, General Manager; PO Box 46, Spooner, WI 54801; Telephone (715) 635-3200; E-mail greg@spoonertrainrifde.com.

Also send a copy to the following: Anna Davey, NW and NC Region Railroad Coordinator; 1701 N 4th Street, Superior, WI 54880; Telephone (715) 392-7960; E-mail: anna.davey@dot.wi.gov.

Include the following information on the insurance document:

- Project ID: 1000-18-33
- Project Location: Trego, W
- Route Name: Pow Road – CTH M, Washburn County
- Crossing ID: 186220K – 186228P
- Railroad Subdivision: Spooner Sub
- Railroad Milepost: 87.55 - 91.37
- Work Performed: Chip Seal

A.2 Train Operation

Approximately four through freight trains operate daily at up to 10 mph. There are no switching movements at this location.

A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination

Construction Contact

Greg Vreeland, General Manager; PO Box 46, Spooner, WI 54801; Telephone (715) 635-3200; E-mail greg@spoonertrainrifde.com for consultation on railroad requirements during construction.

Amend standard spec 108.4 to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

Flagging Contact

See Construction Contact. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

Cable Locate Contact

Call "Diggers Hotline" to determine if fiber optic or other type of cable is buried in the general work location. This railroad does not have a Call Before You Dig number.

8. Notice to Contractor – No Field Office.

Due to the excessive travel distance between the various project locations, a central field office will not be used for the project.

9. Marking Line Paint 4-Inch, Item 646.1005.

Add the following to standard spec 646.3.1.1:

Apply permanent pavement markings to the upper layer of pavements open to through traffic within seven calendar days after completing the fog sealing operation. In the event of adverse weather or other constraints to the marking operations, resume with the approval of the engineer when conditions permit.

10. Temporary Raised Pavement Marker Type II, Item 649.0770.

Temporary Raised Pavement Marker Type II shall be placed according to standard spec 649 and as follows:

Provide temporary raised pavement markers as shown in the plan details. Provide temporary raised pavement markers with a minimum of two layers of removable protective covers to be refreshed between construction stages. Protect the reflective surface below the removable covers from potential damage caused by the scrub broom and binder by applying a clear adhesive tape sealing all open sides of the protective cover or as agreed to by the engineer.

Place the raised pavement markers the same day the existing center line pavement marking is removed. Refresh the raised pavement markers after the scrub seal application, and again after the fog seal application. Replace damaged, missing or ineffective markers before the end of each work day. Remove the temporary pavement markers once the permanent pavement marking has been reestablished.

11. Traffic Control, Item SPV.0060.10.

A Description

This special provision describes providing, maintaining, repositioning, and removing temporary traffic control devices in accordance with standard spec 643, as shown in the plans, and as directed by the engineer.

B Materials

Conform to standard spec 643.2.

C Construction

Conform to standard spec 643.3.

All signs including “Loose Gravel” signs, “Road Work Next XX Miles” signs, “No Center Stripe” signs, “35 mph” advisory signs, “Do Not Pass” signs, “Pass With Care” signs, and all sign supports required shall be incidental to the item of Traffic Control.

Use signs to designate the no-passing zones and to warn traffic during the time when no- passing zone and centerline pavement markings are not in place on intermediate or final surfaces open to through traffic. The department will allow the use of such signs in lieu of no-passing zone and centerline pavement markings for up to seven calendar days following completion of each pavement layer. Such signs shall be in place prior to the time when the pre-existing pavement marking is obliterated and shall be removed following placement of the no-passing zone and centerline pavement markings. Signs may be placed on portable supports unless the sign will be used continuously at the same location for seven or more days. The following signs shall be used:

(1) “Do Not Pass” (R4-1, 24” x 30”) and the existing “No Passing Zone” pennant (W14 3) at the beginning of each no-passing zone.

(2) Additional “Do Not Pass” (R4-1, 24” x 30”) signs within any no-passing zone that continues beyond an intersection with a state or county trunk highway or that exceeds one mile in length. Place an additional sign where traffic enters a no- passing zone from such an intersection and wherever necessary to provide a maximum one-mile sign spacing within any single zone.

(3) “Pass With Care” (R4-2, 24” x 30”) at the end of each no-passing zone.

(4) “No Center Stripe” (W8-12, 48” x 48” minimum) at the beginning of the unmarked area, at two-mile intervals throughout the unmarked area, and at locations where traffic enters the unmarked area from intersections with state trunk and county trunk highways.

D Measurement

The department will measure Traffic Control bid item by the item, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.10	Traffic Control	EACH

Payment for the Traffic Control bid items is full compensation for providing, constructing, assembling, painting, hauling, erecting, re-erecting, maintaining, restoring, and removing traffic signs, drums, barricades, and similar control devices, including arrow boards, unless provided otherwise; and for partially or fully covering or uncovering signs.

12. Sealing Asphaltic Pavement Cracks, Item SPV.0125.01

A Description

Rout and seal, clean and seal and re-seal random transverse, centerline and longitudinal cracks in asphaltic pavement.

A.1 Rout and Seal

Transverse and centerline cracks less than or equal 3/4” wide shall be routed, cleaned and sealed.

A.2 Clean and Seal

Transverse and centerline cracks greater than 3/4” wide and longitudinal cracks shall be cleaned and sealed without routing.

A.3 Re-Seal

Existing sealed cracks that exhibit signs of failure allowing water to penetrate the crack such as missing or loss of existing sealant material, cracking of the existing sealant, loss of adhesion to existing pavement and overband wear shall be routed, cleaned and sealed or cleaned and sealed without routing.

B Materials

B.1 Seal at Transverse, Longitudinal, Centerline and Re-Seal Cracks

Poly-fiber shall contain 5+/-1/2% by weight polyester fibers blended with high quality modified asphalt cement:

FIBER	PROPERTIES
Type	Polyester
Denier	3 to 5
Length	1/4 Inch
(.6cm) Specific Gravity	1.38
Melt Temperature	

PROPERTIES	POLY FIBER LIMITS
Recommended Application Temperature	C)
Safe Heating Temperature	C)
Softening Point (ASTM D36)	min.
Flexibility, 1” (25mm), sec.	Pass @ -20 F (-
Cone Penetration 77 (ASTM D5329)	50 max.
Ductility 77 ASTM D113)	10 cm min.
Asphalt Compatibility (ASTM D5329)	Pass

B.2 Sealant Requirements

Deliver the sealant in the manufacturer's original sealed container legibly marked with the following information:

- Manufacturer’s name.
- Trade name of sealant.
- Manufacturer’s batch or lot number.
- Date of manufacture
- ASTM Designation.
- Minimum application temperature.
- Maximum (or safe) heating temperature.

Before applying the sealant, submit a manufacturer’s certificate of compliance certifying that the compound meets the requirements of this specification and a copy of the manufacturer’s recommendations on heating, re-heating and applying the sealant.

The temperature of the sealant in the field application equipment shall not exceed the safe heating temperature recommended by the manufacturer. Temperatures above the safe heating temperature will result in rejection of the sealant material and will require disposal of the sealant material.

Do not place sealant if the temperature of the material is below the manufacturer’s recommended minimum application/pouring temperature.

Mixing of different manufacturer’s brands or different types of sealants is prohibited. Document the locations where the material from each lot number of sealant is placed.

C Construction

C.1 Weather Limitations

Sealant materials shall only be placed during a period of rising temperature after the air and pavement surface temperature in the shade and away from artificial heat sources has reached 40° F and indications are for a continued rise in temperature. During a period of falling temperatures, which may fall below 40° F, placement of the sealant material shall be suspended until the above conditions are met.

Do not place sealant material if weather conditions are raining or wet. Should the sealant be placed and rain should fall before the sealant has properly cured, remove and replace the wet/contaminated sealant.

C.2 Equipment Requirements

C.2.1 Melting Kettle shall be an oil jacketed double boiler type, equipped with both agitation and recirculation systems capable of starting at ambient temperature and bringing the sealant material to application temperature within one hour, while continuously agitating and recirculating the sealant. The melter shall be equipped with automatic thermostatic controls and temperature gauges to monitor the sealant temperature in the applicator lines and temperature of heat transfer oil in the kettle jacket. It shall be equipped with a pump to pressure fill cracks with the wand applicator. The melting kettle shall be properly insulated to ensure heat is not radiated to the pavement surface.

Furnish, for use by the engineer, an infrared temperature-measuring gun accurate to 1° F at 400° F. The engineer may check the pouring temperature of the sealant at the point of discharge into the reservoir. If the sealant falls below the recommended application/pouring temperature is obtained, all production shall stop at that melting kettle until the recommended application/pouring temperature is obtained. Should the sealant temperature at the point of discharge exceed the maximum safe heating temperature, the melting kettle shall be emptied of all sealant, and the sealant shall be legally disposed of in an environmentally safe method.

C.2.2 Router A minimum of two self-propelled routers will be required capable of providing a cut of uniform depth and width. An engine capable of achieving a minimum of 25 horsepower shall power the router. The router blade or blades shall be of such size and configuration to cut the desired joint reservoir in one pass of the route. The sealant reservoir created shall have vertical sides and a flat bottom. The router must be capable of following straight or meandering cracks. It must have an automatic depth control to ensure consistent and accurate routing depths.

C.2.3 Air Compressor shall be capable of producing a continuous stream of clean, dry air through the nozzle at 75-150 PSI and 225 CFM minimum. The compressed air unit shall be equipped with water and oil traps and must produce sufficient air volume and pressure to remove all debris from the crack, whether routed or not, and all adjacent road surfaces in a safe manner such that the debris will not re-enter the crack prior to the sealing operation. The traps used to remove moisture and oil shall be checked by the contractor at least once per day of production and replaced when necessary.

1. The use of backpack blowers is not allowed.
2. The use of vacuum cleaning equipment may be allowed after demonstrating to the engineer that the vacuum equipment can successfully clean the cracks.

C.2.3 Heat Lance shall operate with propane and compressed air in combination and be capable of achieving a temperature of heated air at the exit orifice of 1,800° F and a discharge velocity of 3,000 feet per second.

C.3 Preparation, Cleaning and Conditioning

C.3.1 Preparation and Cleaning

Transverse, longitudinal, centerline and re-seal cracks shall be thoroughly cleaned with a minimum of one pass of the air wand not more than 2 inches from each face of the reservoir/crack. Cleaning shall continue until the reservoir/crack is dry and all dirt, dust or deleterious matter is removed. If the air compressor produces dirt or other residue, the contractor will be required to re-clean the reservoir/crack.

C.3.2 Conditioning

For all cracks to be sealed, immediately prior to the placement of the crack sealant, the surface as well as the adjacent pavement on either side of the reservoir or a crack shall be conditioned with hot compressed air from a heat lance. The heat lance shall be placed within 3 inches of each sidewall of the reservoir or crack. This treatment shall continue until the affected areas are conditioned. The heat lance shall not scorch the routed reservoir, crack or adjacent pavement surface. The engineer reserves the right to randomly spot check the reservoirs/cracks to verify that they are clean and dry. Anytime the engineer determines that this requirement is not being met, modify their operation to meet these requirements.

Provide protective screening if preparation, cleaning and conditioning operations should cause damage to or interference with traffic in adjacent lanes.

C.4 Crack Sealing Operations

The crack sealant shall be placed immediately after the completion of the preparation, cleaning and conditioning. Cracks shall be sealed when the sealant material is at the application/pouring temperature recommended by the manufacturer.

Fill reservoirs/cracks with sealant using multiple passes if necessary. Overband width shall be of sufficient width to produce a level driving surface with a maximum film thickness at the edges of 0.125 inches thick. The minimum overband width shall be three times the crack width. The contractor may be required to use a squeegee to force the sealant material into narrow cracks if the sealant material is not flowing into the crack properly.

The contractor shall immediately apply a uniform coating of washed 1/8" minus fractured trap rock on the surface of sealant overbands having a width equal to or greater than 3.5" to prevent tracking and add pavement surface friction. Any excess aggregate shall be removed within 24 hours of placement.

The contractor shall immediately apply toilet paper, a light coating of sand or an approved de-tacking agent to the surface of sealant overbands having a width less than 3.5" to prevent tracking.

Care shall be taken in the sealing cracks so that the cracks are not overfilled and the final appearance shall present a neat fine line. The applicator wand shall be returned to the machine and the joint sealant material re-circulated immediately upon completion of each crack sealing.

Sealants shall not be removed from their packaging until immediately before it is placed in the melter. Feed additional sealant into the melter at a rate equal to or less than the rate of placement of the sealant in the reservoirs/cracks.

After the sealant has been placed and cured and before opening the road to traffic, any additional debris left on the roadway surface shall be removed. Any method used to complete this work shall not damage the newly placed sealant. If damage occurs it shall be promptly repaired.

C.5 Pavement Markings

If 50% or more of the existing centerline pavement marking within any 100 foot section is covered or obliterated as a result of the crack sealing, temporary centerline pavement markings shall be placed on the same day, as approved by the engineer. Temporary Raised Pavement Markers will be used. Pavement markings shall meet standard spec 649.

C.6 Documentation

Melting kettle production data sheets shall be developed, completed, and submitted daily for each kettle on the project with the following information.

1. Date, county, highway route number and highway segment.
2. Weather conditions at morning, mid-day and afternoon intervals.
3. Kettle number, ambient air and pavement temperature in °F at the beginning of the day, mid-day and end of day.
4. Kettle temperature in °F once an hour during working production.
5. Sealant material temperature in °F at the wand once an hour during working production.
6. Beginning and ending locations on project for the day, including lane and direction.
7. The amount of materials used for the day in pounds including lot numbers.
8. Unique or atypical situations on the project that may affect the placement or performance of the sealed cracks.
9. The contractor's authorized signature.

Record the required information on the melting kettle production data sheets as required during the actual working operations. This information is to be recorded by the contractor. At the end of each day's production, the completed sheets shall be presented to the engineer, and the engineer shall place them in a permanent file.

C.7 Workmanship

During crack sealing operations, the engineer may review the sealant temperatures at the melting kettle intermittently. If the temperatures are above the manufacturer's specified safe heating temperature, the sealant will be rejected. Empty the kettle of the over-heated material and legally dispose of it in an environmentally safe method.

Asphalt cracks, whether sealed by the 'Clean and Seal' or 'Re-Seal' method, will be observed on a crack-by-crack basis for acceptable workmanship. Unsealed cracks will be brought to the attention of the contractor. Fill all unsealed cracks before re-opening the roadway to traffic.

Sealed cracks shall be rejected if there is evidence of poor workmanship or obvious defects, including but not limited to the following:

- Reservoir not filled completely or sufficient overband.
- Lack of bond to the sidewalls of the joint reservoir, crack or asphalt pavement.
- Excessive debris or moisture in the joint reservoir or crack.
- Contamination of the sealant.
- Excessive pools of sealant on the pavement or shoulder surface.
- Loss of sealant bond to the pavement.
- Inadequate quantity or quality of rock chips over the sealant for skid resistances.

Rejected sealed cracks shall be repaired, the sealant removed and disposed of in a legal and appropriate manner and the cracks resealed as necessary.

D Measurement

The engineer will measure Sealing Asphaltic Pavement Cracks by the mile of the project, acceptably completed. A mile is defined as a linear measurement taken along the centerline to the nearest tenth of a mile and will include the sealing of asphalt cracks in the traffic lanes, auxiliary lanes, paved shoulders and intersections out to the ends of the radii on side-road intersections.

For a divided highway, the mile will be measured separately in each direction.

E Payment

The department will pay for measured quantities at the contract unit prices under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0125.01	Sealing Asphaltic Pavement Cracks	MI

Payment is full compensation for furnishing and installing all methods of crack sealing required.

13. Chip Seal, Item SPV.0180.01.

A Description

Construct a chip seal surface treatment as described in standard spec 475 and as hereinafter provided.

B Materials

B.1 Asphaltic Material

Provide CRS-2P or HFRS-2P, Asphaltic material for seal coat. The CRS-2P and HFRS-2P, asphaltic material for seal coat shall meet the following requirements for the type and grade specified. Only Asphaltic Material supplied from a certified source is approved for use.

Emulsified asphalt compatibility with aggregate shall be verified prior to construction. This shall be done through documentation from material provider.

Emulsified Asphalt

The emulsified asphalt shall meet the requirements of AASHTO M-316 subject to the following modification:

- Polymer-modified cationic emulsified asphalt, (CRS-2P), and polymer-modified anionic emulsified asphalt, (HFRS-2P) shall be produced by using polymer modified base asphalt only. The use of Latex modification shall not be allowed. Any emulsion not meeting this requirement shall not be used.

B.2 Seal Coat

Provide aggregate conforming to standard spec 460. Use aggregates, uniform in quality and free from wood, bark, roots, and other deleterious materials. Gradation and are specified in Table 1.

Table 1 (Values are the percent passing the sieve)

Sieve Size	Percent Passing By Weight #1	Percent Passing By Weight #2	Percent Passing By Weight #3
3/8 inch (9.5mm)	100	100	100
#4 (4.75mm)	90-100	90-100	85-100
#8 (2.36mm)	45-75	5-10	10-40
#16 (1.19mm)			0-10
#40 (425mm)	0-8	0	
#200 (75mm)	0-2		0-1

B.3 Water

Use potable water, compatible with the seal coat.

B.4 Mix Design

If the aggregate material specified in Table 1 is unavailable or is cost prohibitive to obtain, the contractor may submit a proposed aggregate and emulsion design. The design should include a listing of recent projects and roadways where the design has been utilized within the last four years. The proposed alternative design will be reviewed and approved by the engineer in writing prior to using the project.

C Construction

C.1 General

Construction seal coat to the width as shown in the plans or as directed by engineer. Use asphaltic material of the type and grade the special provisions designate.

C.2 Equipment

Distributor: Use a distributor as specified in standard spec 455.3.2.2.

Aggregate Spreader: Use a self-propelled mechanical type aggregate spreader capable of distributing the aggregate uniformly to the required width and at the designed rate. Use a self-propelled type mounted on pneumatic-tired wheel.

Rollers: Provide a minimum of two self-propelled rollers. At least on roller will be a a pneumatic-tire roller. Steel-wheel rollers must weigh between 6 and 9 tons.

Brooms: Provide motorized brooms with a positive means of controlling vertical pressure and capable of cleaning the road surface prior to spraying asphaltic material and removing loose aggregate after seal coating.

C.3 Weather Limitations

Construct seal coat operations (including traffic restrictions on the freshly constructed seal coat) according to the following:

- Not before May 1 or after August 31.
- Work only during daylights hours.
- Start when the pavement and air temperature are 60°F and rising.
- The road surface is dry and there shall be no standing water.
- Do not apply before impending rains if rain might damage the material before placing and rolling the cover aggregates/

C.4 Road Surface Preparation

Immediately before applying the asphaltic material clean the existing surface with a power broom or other suitable equipment to remove dirt, clay, or other objectionable material. Clean depressions not reached by the power broom using hand brooming.

Remove vegetation from cracks or joints.

Cover iron (manholes, gate valve covers, catch basins, sensors, etc.) to prevent adherence of the asphaltic material. Suitable covering includes plywood disks, sand, Kraft paper, roofing felt or other approved methods. Remove the protective coverings before opening the road to traffic.

C.5 Application of Asphaltic Material

Begin the rate of application for the asphaltic material at a rate of 0.36 gallons per square yard or as determined and agreed upon by the engineer. Inspect the aggregate in the wheel paths for proper embedment. Make adjustments to the rate of application, if necessary. Construct on full lane width at a time. Cover previously applied material as required to create transverse joints without overlapping. Make additional adjustments to the rate of application during the project if needed.

Limit the length of any spread to that which can be covered immediately with aggregate and rolled within 30 minutes. Limited the distance between the bituminous distributor and the aggregate spreader to 150 feet.

C.6 Application of Aggregate

Apply the aggregates at a rate of t18 pounds per square yard or as determined and agreed upon by the engineer.

Immediately after the asphaltic material has been sprayed, apply the aggregates. The speed of the spreader shall be such that aggregates are not turned over, and starting and stopping of the spreader is minimized. The edges of the aggregate applications shall be sharply defined. Previously used (sweeping) aggregates will not be allowed.

C.7 Rolling Operations

Complete the initial rolling immediately after applying the aggregate. Proceed at a recommended speed less than or equal to 5 miles per hour, to prevent turning over aggregate.

Begin at the edges and continue to the center, lapping ½ the roller width on each successive pass. After this initial rolling, perform subsequent rolling using a combination of steel wheel rollers and pneumatic tire rollers or pneumatic tire roller only until thoroughly embedding the aggregate and the surface is smooth and uniform in texture.

The total compacting width of each roller shall exceed 5 feet.

C.8 Sweeping

Within 24 hours of the seal coat construction, sweep of the surplus aggregate on all seal coat operations including paved shoulders, asphaltic curb locations, intersecting highways, and bridges. Sweep with care to not dislodge aggregate that is setting. Re-sweep areas after the initial sweeping. Dispose of the surplus seal coat aggregate in a manner satisfactory to the engineer.

C.9 Protection of the Surface

No traffic is permitted on seal coated road surface until after the specified rolling has been completed and the asphaltic material has set and will not pick up on vehicle tires.

D Measurement

The department will measure Seal Coat by the square yard acceptably completed.

E Payment

The department will pay for measured quantities at the unit price under the following work items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.00	Chip Seal	SY

Payment is full compensation for preparing the surface; for furnishing, heating, and applying asphaltic material; for furnishing, drying or moistening, applying, and rolling the cover aggregate, for brooming, finishing, and maintaining the surface.

14. Scrub Seal, Item SPV.0180.02.

A Description

Construct a scrub seal surface treatment as described in standard spec 475 and as hereinafter provided.

B Materials

B.1 Polymer Modified Bituminous Rejuvenating Emulsion Binder – Grade CMS-2P

Emulsion Property	MIN	MAX	Test Method
Viscosity @ 50°C (122°F) (cPs)	110	880	ASTM D7226
Residue by Evaporation, W%, MIN	65		ASTM D6943[1]
Sieve, W%, MAX[2]		0.1	AASHTO T59
Particle Charge	POSITIVE		AASHTO T59
Demulsibility 35 mL, 0.8% Sodium Dioctyl sulfosuccinate%		20.0	AASHTO T59
Storage Stability, W%, 24 Hours[2]		1.0	AASHTO T59
Residue Property (By Vacuum Distillation)			AASHTO D7403
	2.2		AASHTO T315
MSCR @ 10°C, %R @3.2kPa, %	55		ASTM D7405
Penetration @ 4°C, MIN[3]	40		AASHTO T49
Rejuvenating Agent Property			
Viscosity, 60°C (140°F), cPs	50	300	ASTM D4402
Flash Point, COC, F	>425		ASTM D92
Saturates, W%		30	ASTM D2007
Solubility in N-Pentane, W%	99.0		ASTM D2007
Mass Loss After RTFO or TFO, W%		6.5	AASHTO T240 OR T179
Viscosity Ratio		3.0	AASHTO T179

1. ASTM D7404 is an acceptable alternate test method for determination of % residue in emulsion.
2. This test requirement on representative samples is waived if successful application of the material has been achieved in the field.
3. Test conditions: 200g at 60s.

B.2 Coarse Aggregate

The coarse aggregate shall be 100% crushed material from quarried stone, natural gravel or other high quality aggregate excluding sources containing magnesium or calcium carbonite and meet the following requirements:

B.4 Physical Requirements

Description	MIN	MAX	Test Method
L.A. Abrasion Loss @ 500 Revolutions, %		35	AASHTO T96
Deleterious Material, W%		1.0	AASHTO T113
Crushed Pieces, 1 Fractured Face, %	100		WISDOT CMM 8-60
Sodium Sulfate Soundness Test, 5 Cycle, R4, %	15		AASHTO T104

B.5 Grading Requirements – ASTM C-117

SIEVE		TYPE I
1 inch	(25 mm)	100
3/4 inch	(19 mm)	100
1/2 inch	(12.5 mm)	100
3/8 inch	(9.5 mm)	100
5/16 inch	(8.0 mm)	90-100
No. 4	(4.75 mm)	10-80
No. 8	(2.36 mm)	5-30
No. 16	(1.18 mm)	0-15
No. 200	(75 um)	0-5

C Construction

C.1 Equipment

All equipment required for performance of the work shall be approved before construction is to begin and shall be maintained in satisfactory operating condition. The contractor shall furnish an accurate thermometer, hand brooms and other small tools and equipment essential for the completion of the work.

Pressure Distributor

The pressure distributor shall have a computerized rate control that automatically adjusts the distributor's pump to the ground speed. The pressure distributor shall be capable of heating and re-circulating the bituminous binder to the specified temperature. The proper nozzles shall be used for the material and rate specified.

Scrub Broom

The scrub broom frame shall be constructed such that the scrub broom is attached to the distributor truck. The scrub broom must be equipped with the means to mechanically raise and lower the scrub broom off and unto the road surface at designated points of completion and start up. It shall be towable in the elevated position. The weight of the broom assembly shall be such that it does not squeegee the emulsion off the roadway surface.

The main body of the scrub broom shall be a frame minimum 6'-9'' wide and 10 feet long. The maximum transverse rigid frame width at any point shall not exceed 6'-9''. The nearest and furthest members, paralleling the back of the spreader truck, and diagonal members shall be equipped with emulsion scrub brooms. The leading member and the trailing member shall have broom heads angled at 10 to 15 degrees off the centerline of the supporting member. Each individual emulsion scrub broom attached to the scrub broom assembly shall be 3 1/2'' w x 6 1/2'' h x 16'' l and have stiff nylon bristles. Bristle height is to be maintained at a minimum of 5 inches. The scrub broom shall be equipped with hinged wing assemblies attached to the main body not to exceed 4'-6'' per side, with diagonals and equipped with emulsion scrub brooms. The purpose of the maximum rigid frame width and the hinged wing extensions is not only for maximum width of 16 feet but to maintain the scrubbing process consistently as surface textures and conditions along with cross-sections change along the existing roadway surface.

NOTE: The contractor must supply a scrub broom as described for the purpose of scrubbing the polymer modified asphaltic rejuvenating emulsion. If the contractor fails to supply the scrub broom specified, the project shall be shut down.

Aggregate Spreader

The aggregate spreader shall be self-propelled and shall be equipped with hoppers, revolving cylinders and adjustments necessary to produce a uniform distribution of material at the specified rate.

Pneumatic Tire Roller

The pneumatic tire rollers shall weigh a minimum of five tons.

C.2 Pre-Paving On-Site Meeting

A meeting between the contractor and engineer will be held at the project site prior to beginning work. The agenda for this meeting will include:

- Review of contractor's detailed work schedule.
- Review of the traffic control plan.
- Inspection of equipment.
- Calibration and adjustment to equipment as needed.

C.3 Weather Limitations

The stress absorbing membrane interlayer scrub seal shall be places when the pavement and atmospheric temperature is 50°F and rising. Placement is not permitted if it is raining, when the pavement surface has standing water, or when temperatures are forecasted to be below 40°F within 24 hours of placement.

C.4 Qualifications

The contractor shall have had a minimum of five years' experience in the application of polymer modified asphaltic emulsion and have successfully completed at least three similar type projects utilizing the scrub-broom. References shall be supplied upon request.

C.5 General

The contractor shall follow the construction methods as described:

- Preparation of the surface shall include removal of all vegetation, dirt and debris from the roadway. The surface shall be cleaned by the contractor and shall be reasonably dry when the bituminous binder is applied. Material cleaned from the surface shall be properly disposed of.
- Construct the scrub seal to the width as shown in the plans or as directed by the engineer. The edges of the limits of the scrub seal application on both sides of the road shall be maintained in a neat and uniform line.
- Immediately following application of the polymer modified bituminous rejuvenating emulsion binder to the roadway surface, the material shall be scrubbed with the scrub broom for the purpose of forcing the emulsion into the existing surface voids and distributing the emulsion over variable roadway surface textures and conditions.
- The application of the polymer modified asphaltic rejuvenating emulsion and scrub broom operation shall cease +/- 40 feet prior to the end of the road section or intersection. The remaining polymer modified asphaltic rejuvenating emulsion shall be drug out by the scrub broom, and the remaining emulsified material required to complete the pass shall be applied only by the distributor at the specified rate.
- The specified aggregate shall be spread uniformly onto the bituminous binder prior to the emulsion breaking and as agreed to by the engineer.
- Projects with segments greater than 20,000 square yards shall use a minimum of three rollers. Rollers shall proceed at a maximum speed of 5 mph. The entire surface shall receive a minimum of two roller passes. The first roller pass shall be performed within one minute of aggregate spreading.
- Sweeping of the completed surface shall be accomplished prior to unrestricted use by traffic. The entire surface shall be clean of all loose material within 24 hours and prior to placement of any surface course.
- Cover iron (manholes, gate valve covers, catch basins, sensors, etc.) to prevent adherence of the asphaltic material. Suitable covering includes plywood disks, sand, Kraft paper, roofing felt or other approved methods. Remove the protective coverings before opening the road to traffic.

C.6 Application of Bituminous Binder and Coarse Aggregate

The bituminous binder shall be heated to specified temperature and uniformly placed to prevent ridges or streaks in the surface.

C.7 Bituminous Binder

The bituminous binder shall be applied at a temperature of 110°F to 180°F, and at the rate specified.

C.8 Coarse Aggregate

- Stockpiling and loading methods shall permit ready identification of material and minimize segregation and contamination of the aggregate.
- The moisture content of the course aggregate shall be below 4% and maintained throughout the project.
- Coarse aggregate shall be spread uniformly without ridges or gaps at the specified rates.
- Spreading of the aggregate shall be adjusted to produce a minimum of excess loose particles, shall provide complete coverage, and there shall be no "excessive" bleed-through after rolling.
- The spreading operation shall be accomplished in such a manner that neither the tires of trucks nor the spreader come into contact with the newly applied bituminous material.

C.9 Material Application Rates

Aggregate Application Rate
Pounds per Square Yard

Application Type	Application	Tolerance
Scrub Seal	23	In Field Adjustments

Binder Application Rate
Gallons per Square Yard

Application Type	Application	Tolerance
Scrub Seal	0.30 – 0.40	± 0.05

The supplier of the scrub seal binder shall determine the application rate for emulsion and aggregate based on the existing pavement condition and aggregate size. This information shall be reported to the engineer prior to beginning work and shall include an aggregate gradation on the job-specific materials.

C.10 Quality Control

To measure compliance, the contractor shall use the methods described in this section:

- Aggregate Gradation
- Aggregate Moisture Content
- Yield Check on Bituminous Binder
- Temperature Check on Bituminous Binder

If the contractor's test results exceed any of the identified quality control tolerances, the engineer shall be immediately notified. The engineer will review the explanation and the corrective action taken by the contractor. Another test will be taken and if the results still exceed he quality control tolerance, placement shall stop. The contractor shall immediately notify the engineer and identify the cause of the excessive deviation and detail corrective action necessary to bring the deficiency into compliance. The engineer will give approval prior to resuming work.

C.11 Bituminous Binder

The application rate shall not exceed a tolerance of +/-0.05 gallons per square yard from the specified rate, and within the temperature range as specified.

C.12 Course Aggregate

The aggregate shall be clean and uniform and shall be within the gradation range as specified. Moisture content shall not exceed the tolerance as specified. Apply the aggregates at a minimum rate of 23.0 pounds per square yard. Take all precautions to minimize contamination of the aggregate. All stockpiles will be in place a minimum of 10 calendar days prior to seal coat operations to allow time to sample, test and accept the stockpile.

D Measurement

The department will measure Scrub Seal by the square yard, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.02	Scrub Seal	SY

Payment is full compensation for preparing the surface; for furnishing, heating, and applying asphaltic material; for furnishing, drying or moistening, applying, and rolling the cover aggregate; for brooming, finishing, and maintaining the surface.

15. Fog Seal, Item SPV.0180.03.

A Description

Construct a fog seal surface treatment as described in standard spec 475 and as hereinafter provided.

B Materials

B.1 Asphaltic Material

Provide CSS-1H or CQS-1H, asphaltic material for fog seal. The CSS-1H and CQS-1H, asphaltic material for fog sealing, shall meet the following requirements for the type and grade specified. Only Asphaltic Material supplied from a certified source is approved for use.

Emulsified asphalt compatibility with aggregate shall be verified prior to construction. This shall be done through documentation for material provider.

Emulsified Asphalt

The emulsified asphalt shall meet the requirements of AASHTO M-208 subject to the following modification:

- CSS-1H and CQS-1H shall be produced without the use of a polymer modified base and without the use of a Latex modification. Any emulsion not meeting this requirement shall not be used.

C Construction

C.1 General

Construct fog seal to the width as shown in the plans or as specified by the engineer. Use asphaltic material of the type and grade the special provisions designate.

C.2 Road Surface Preparation

Cover iron (manholes, gate valve covers, catch basins, sensors, etc.) to prevent adherence of the asphaltic material. Suitable covering includes plywood disks, sand, Kraft paper, roofing felt or other approved methods. Remove the protective coverings before opening the road to traffic.

C.3 Application of Asphaltic Material for Fog Sealing

Fog seal completed chip sealed or scrub sealed area, after sweeping and before placement of permanent pavement markings. Construct the fog seal as follows: Construct a 100-foot test strip. Review the application of diluted (1:1) asphaltic material and adjust the application rate as needed. Apply between 0.07 to 0.18 gallons per square yard, diluted. Apply the fog seal to minimize the amount of overspray. Do not allow traffic on the fog seal until it has cured.

D Measurement

The department will measure Fog Seal by the square yard, acceptably completed.

E Payment

The department will pay for measured quantities at the unit price under the following work items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.03	Fog Seal	SY

Payment is full compensation for preparing the surface; for furnishing, heating, and applying emulsified asphaltic material; for finishing and maintaining the surface.

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor may also withhold routine retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

Release of Routine Retainage

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

Additional Special Provision 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

104.3 Contractor Notification

Replace the entire text with the following effective with the December 2019 letting:

104.3.1 General

(1) Subsection 104.3 specifies the step-by-step communication process to be followed to expedite the resolution of potential contract revisions identified by the contractor. Both contractor actions and department responses are outlined. The contractor's non-compliance with the requirements of 104.3 may constitute a waiver of entitlement to a pay adjustment under 109.4 or a time extension under 108.10. The department and contractor can mutually agree to extend any time frame specified throughout 104.3.

104.3.2 Contractor Initial Oral Notification

(1) If required by 104.2, or if the contractor believes that the department's action, the department's lack of action, or some other situation results in or necessitates a contract revision, the contractor must promptly provide oral notification to the project engineer. Upon notification, the project engineer will attempt to resolve the identified issue.

104.3.3 Contractor 5-Day Written Statement

(1) If the project engineer has not responded or resolved the identified issue within 5 business days after receipt of initial notification, provide a contractor written statement to the project engineer in the following format:

Part 1 - Executive Summary *(label page 1.1 through page 1.x)*

Include a detailed, factual statement of the request for additional compensation and contract time. Include the date the issue was identified, the date initial notification was given to the project engineer, and the dates and specific locations of work involved.

Part 2 - Contractor's Basis of Entitlement *(label page 2.1 through page 2.x)*

Include references to relevant contract provisions and a narrative summarizing how the contract provisions support the request for a revision to the original contract.

Part 3 - Contractor's Request for Damages *(label page 3.1 through page 3.x)*

When requesting additional compensation, include an itemized list of costs with a narrative supporting the requested amount and explaining how the costs are tied to the requested contract revision.

When requesting additional contract time, include a copy of the schedule that was in effect when the issue occurred and a detailed narrative explaining how the issue impacted controlling items of work. Provide a time impact analysis utilizing base and updated schedules.

If the full extent of either compensation or time is not known at the date of submittal of the contractor 5-Day written statement, provide a brief statement as to why, and include estimated compensation and time.

Part 4 - Supporting Documentation *(label page 4.1 through page 4.x)*

Include copies of the following:

A. Relevant excerpts from specifications, special provisions, plans, change orders, or other contract documents.

B. Communication on the issue, including: letters, e-mails, meeting minutes, etc.

C. Any other documentation to support or clarify the contractor's position, including: daily work records, cost summary sheets, weigh tickets, test results, sketches, etc.

(2) With the submittal of the written statement, the contractor may also request a meeting with the region.

104.3.4 Region One-Day Written Acknowledgment

(1) Within one business day after the contractor provides the 5-day written statement, the project engineer will provide a region one-day written acknowledgment to the contractor. The project engineer will continue to resolve the issue.

104.3.5 Region 5-Day Written Response

(1) Within 5 business days after receiving the contractor 5-day written statement, the project engineer may request specific additional information to allow the project engineer to decide whether item 1 or 2 of 104.3.6(1) applies. The project engineer will state the information needed and date it is to be

received for further review. Submit additional information as an amendment to the contractor 5-day written statement.

104.3.6 Region Final Decision

(1) Within 10 business days after receiving the contractor 5-day written statement or additional information requested in 104.3.5(1), whichever comes last, the region will consider all information and provide a region final decision in writing to the contractor with one or more of the following responses:

1. The region will confirm that the contractor is entitled to a contract revision and a contract change order is necessary as specified in 104.2. The project engineer will give direction concerning the potential change.
2. The region will deny that the contractor is entitled to a contract revision. The project engineer will provide a statement as to why the issue is not a change to the contract. At a minimum, the project engineer will respond to the contractor's issues and refer to the contract to show why the issues are not a change from the original contract.

(2) If the contractor does not agree with the region's decision the contractor may pursue the issue as a claim as specified in 105.13. Alternatively, if the contractor and department mutually agree, the department will get a third-party advisory opinion according to the department's dispute resolution procedures.

(3) If a third party reviews the issue, their recommendation is not binding on either party. The region has 10 business days after receipt of the third party's written recommendation to render a decision. If the department fails to respond in writing within those 10 business days or the contractor disagrees with the region's decision, the contractor may pursue the issue as a claim as specified in 105.13.

104.6.1.2.1 General

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conduct construction operations and provide facilities required to maintain the portion of the project open to the public in a condition that safely and adequately accommodates public traffic. Use barricades, signs, flaggers, and temporary barrier as specified in part VI, of the WMUTCD and ensure that the contractor's use of the right-of-way conforms to 107.9. Throughout the life of the contract, and as the engineer directs, conduct construction operations and provide facilities as follows:

- Conduct flagging operations conforming to plan details and the department's flagging handbook.
- Use drums, barricades, and temporary barrier to delineate and shield abrupt drop-offs and other hazards.
- Furnish, erect, and maintain traffic control devices and facilities conforming to 643.
- Furnish, erect, and maintain temporary pedestrian devices and facilities conforming to 644.

104.6.1.2.2 Flagging

Replace paragraph three with the following effective with the December 2019 letting:

(3) Provide associated advanced warning signs that meet the retroreflective requirements of 637.2.2.2. Provide temporary portable rumble strips from the department's APL installed according to manufacturer's instructions and as specified in the flagging plan details. Provide guidance service through the worksite using pilot vehicles if required.

Replace paragraph five with the following effective with the December 2019 letting:

(5) Flagging is incidental to the contract and includes costs for advance signing, temporary portable rumble strips, and pilot vehicle guidance service.

104.8 Rights in the Use of Materials Found on the Project

Replace paragraph two with the following effective with the December 2019 letting:

(2) Do not excavate or remove material from within the right-of-way that is not within the vertical and horizontal excavation limits the plans show except as follows:

- If the contract does not identify potential source areas, obtain written authorization from the engineer to use those sources. Complete required environmental documentation and obtain necessary permits. The department will reduce pay by $1.50 per cubic yard under the Material from Right-of-Way administrative item for material obtained from those areas.
- If the contract identifies potential source areas that were evaluated and permitted in the original environmental document, do not begin excavating in those areas until the engineer allows in writing. Additional environmental documentation and environmental permits are not required. The department will not reduce pay for material obtained from those areas.

The department may suspend use of these sources if the contractor's operation affects the essential functions or characteristics of the project.

104.10.1 General

Replace paragraph one with the following effective with the December 2019 letting:

(1) Subsection 104.10 specifies a 2-step process for contractors to follow in submitting a cost reduction incentive (CRI) for modifying the contract in order to reduce direct construction costs computed at contract bid prices. The initial submittal is referred to as a CRI concept and the second submittal is a CRI proposal. The contractor and the department will equally share all savings generated to the contract due to a CRI as specified in 104.10.4.2(1). The department encourages the contractor to submit CRI concepts for the following situations:

1. The contractor generates the original cost savings idea and formulates it into a concept.
2. The department generates the original cost savings idea and obtains the contractor’s assistance to formulate the idea into a concept.

Replace paragraph five with the following effective with the December 2019 letting:

(5) The department will consider a CRI that changes but does not impair the essential functions or characteristics of the project. These functions or characteristics include, but are not limited to, appearance, service life, economy of operations, ease of maintenance, design, and safety of structures and pavements, construction phasing or procedures, or other contract requirements. The department will not consider a CRI that changes the following:

- Permanent pavement type.
- Permanent structural cross section above the subgrade.

104.10.2 Submittal and Review of a CRI Concept

Replace paragraphs five and six with the following effective with the December 2019 letting:

(5) The department may consider a CRI concept that addresses a potential change under 104.2.

(6) The department will not implement a contractor-initiated CRI concept, or portion of that concept, without sharing the cost savings with the contractor as specified in 104.10.4.2.

(7) The savings generated by the CRI must be sufficient to warrant its review and processing and offset the level of risk. The department will assess the risk of the CRI relative to departmental design policies and criteria for the project. The department may reject a CRI concept for the following reasons:

1. It requires excessive time or costs for the contractor to develop the CRI proposal.
2. It requires excessive time or costs for review, evaluation, investigation, or implementation.
3. It introduces an inappropriate level of risk.

104.10.4.2 Payment for the CRI Work

Replace paragraph one with the following effective with the December 2019 letting:

(1) The department will pay for completed CRI work as specified for progress payments under 109.6. The department will pay for CRI's under the Cost Reduction Incentive administrative item. When all CRI costs are determined, the department will execute a contract change order that does the following:

1. Adjusts the contract time, interim completion dates, or both.
2. Pays the contractor for the unpaid balance of the CRI work.
3. Pays the contractor 50 percent of the net savings resulting from the CRI, calculated as follows:

NS = CW - CRW - CC - DC

Where:

NS = Net Savings

CW = The cost of the work required by the original contract that is revised by the CRI. CW is computed at contract bid prices if applicable.

CRW = The cost of the revised work, computed at contract bid prices if applicable.

CC = The contractor's cost of developing the CRI proposal.

DC = The department's cost for investigating, evaluating, and implementing the CRI proposal.

105.13 Claims Process for Unresolved Changes

Replace the entire text with the following effective with the December 2019 letting:

105.13.1 General

(1) Before submitting a claim, the department and contractor can mutually agree to have the department get a third-party advisory opinion as specified in 104.3.6.

(2) The department and contractor can mutually agree to extend any time frame specified throughout 105.13 and can mutually agree to utilize an alternative dispute resolution method at any point before the department renders its final decision.

(3) The department and contractor share costs related to referral to a dispute review board (DRB) as prescribed in the department's dispute resolution procedures.

105.13.2 Notice of Claim

(1) If the contractor has followed the procedures for revising the contract specified in 104.2 and provided the notification specified in 104.3, but still disagrees with the region, the contractor may pursue the issue as a claim. File a notice of claim with the project engineer concerning the disagreement within 14 calendar days of receiving the region's decision under 104.3.6(1).

(2) The project engineer may deny the applicable portion of a claim if the contractor does not do the following:

1. File the notice of claim within 14 calendar days as specified in 105.13.2(1).
2. Give the project engineer sufficient access to keep a record of the actual labor, materials, and equipment used to perform the claimed work.

(3) Upon filing the notice of claim, maintain records as specified for force account statements in 109.4.5. Unless the project engineer issues a suspension, continue to perform the disputed work. The department will continue to make progress payments to the contractor as specified in 109.6.

105.13.3 Submission of Claim

(1) Submit the claim to the project engineer as promptly as possible following the submission of the Notice of Claim, but not later than the end of the time allowed under 109.7 for the contractor to respond in writing to the engineer-issued semi-final estimate. If the contractor does not submit the claim within that response time, the department will deny the claim.

(2) The department will not accept the submission of a claim until the resolution process in 104.3 has been completed and the contractor makes no further requests to submit updated information that may affect the region's final decision.

105.13.4 Content of Claim

(1) The final contractor written statement under 104.3.3 is considered the content of the claim. If the contractor makes a request to submit updated information that may affect the region's final decision under 104.3.6, submit the updated information as an amendment to the contractor written statement and continue the resolution process in 104.3 before submitting a claim.

(2) The department may refer the claimant of a false claim to the appropriate authority for criminal prosecution. Certify the claim using the following form:

The undersigned is duly authorized to certify this claim on behalf of (the contractor).

(The contractor) certifies that this claim is made in good faith, that the supporting data are accurate and complete to the best of (the contractor's) knowledge and belief, and that the amount requested accurately reflects the contract adjustment for which (the contractor) believes that the department is liable.

(THE CONTRACTOR)

By:_____
(Name and Title)

Date of Execution:_____

105.13.5 Department Final Decision

(1) The department will have up to 28 calendar days, from the contractor's submission of the claim, to perform a final review of the claim and conduct all meetings. The department may request, in writing, that the contractor submit additional information related to the claim. Submit that additional information, or notify the department in writing to base its decision on the information previously submitted. Either the contractor or region may request a meeting to present their views. Before the meeting, both parties will agree upon written ground rules for the meeting.

(2) Upon completion of the 28 calendar days for the department's review and meetings, the department will have up to 21 calendar days to render a written decision. The department will consider written and oral submissions from the contractor and region, and may consider other relevant information in the project records.

(3) The department will provide the following in its final decision:

1. A concise description of the claim.
2. A clear, contractual basis for its decision that includes a reference to 104.2 on revisions to the contract and as appropriate, specific reference to language regarding the bid items in question.
3. Other facts the department relies on to support its decision.
4. A concise statement of the circumstances surrounding the claim and reasons for its decision. If the department rejects the claim in whole or in part, the department will explain why the claimed work is not a change to the contract work.
5. The amount of money or other relief, if any, the department will grant the contractor.

(4) If the contractor disagrees with the department's final decision, the contractor may initiate a legal action pursuant to state statutes.

106.3.4.2.2.2 Freeze-Thaw Soundness

Replace paragraph one with the following effective with the December 2019 letting:

(1) Perform freeze-thaw soundness testing according to AASHTO T103 as modified in CMM 8-60.2. Provide freeze/thaw soundness test results based on the fraction retained on the No. 4 sieve as follows:

1. Using virgin crushed stone aggregates produced from limestone/dolomite sources in one or more of the following counties or from out of state:

Brown	Columbia	Crawford	Dane	Dodge
Fond du Lac	Grant	Green	Green Lake	Iowa
Jefferson	Lafayette	Marinette	Oconto	Outagamie
Rock	Shawano	Walworth	Winnebago	

2. Using gravel aggregates produced from pit sources in one or more of the following counties or from out of state:

Dodge	Washington	Waukesha

208.5 Payment

Replace paragraph three with the following effective with the December 2019 letting:

(3) The department will adjust pay for material obtained from within the project right-of-way limits but outside project excavation limits, furnished under 208.2.2, as specified in 104.8.

301.2.3 Sampling and Testing

Replace paragraph one with the following effective with the December 2019 letting:

(1) Department and contractor testing shall conform to the following:

Sampling[1]	AASHTO T2
Percent passing the 200 sieve	AASHTO T11
Gradation[1]	AASHTO T27
Gradation of extracted aggregate	AASHTO T30
Moisture content[1]	AASHTO T255
Liquid limit	AASHTO T89
Plasticity index	AASHTO T90
Wear	AASHTO T96
Sodium sulfate soundness (R-4, 5 cycles)	AASHTO T104
Freeze/thaw soundness[1]	AASHTO T103
Lightweight Pieces in Aggregate	AASHTO T113
Fracture	ASTM D5821 as modified in CMM 8-60
Moisture/density[1]	AASHTO T99 and AASHTO T180
In-place density[1]	AASHTO T191
Asphaltic material extraction	CMM 8-36 WisDOT Test Method 1560

[1] As modified in CMM 8-60.

301.2.4.5 Aggregate Base Physical Properties

Replace paragraph one with the following effective with the December 2019 letting:

(1) Furnish aggregates conforming to the following:

TABLE 301-2 AGGREGATE BASE PHYSICAL PROPERTIES

PROPERTY	CRUSHED STONE	CRUSHED GRAVEL	CRUSHED CONCRETE	RECLAIMED ASPHALT	REPROCESSED MATERIAL	BLENDED MATERIAL
Gradation AASHTO T27						
dense	305.2.2.1	305.2.2.1	305.2.2.1	305.2.2.2	305.2.2.1	305.2.2.1[1]
open-graded	310.2	310.2	not allowed	not allowed	not allowed	not allowed
Wear AASHTO T96 loss by weight	<=50%	<=50%	note[2]	___	note[2]	note[3]
Sodium sulfate soundness AASHTO T104 loss by weight						
dense	<=18%	<=18%	___	___	___	note[3]
open-graded	<=12%	<=12%	not allowed	not allowed	not allowed	not allowed
Freeze/thaw soundness AASHTO T103[6] loss by weight						
dense	<=18%	<=18%	note[2]	___	___	note[3]
open-graded	<=18%	<=18%	not allowed	not allowed	not allowed	not allowed
Liquid limit AASHTO T89	<=25	<=25	<=25	___	___	note[3]
Plasticity AASHTO T90	<=6[4]	<=6[4]	<=6[4]	___	___	note[3]
Fracture ASTM D5821[6] min one face by count						
dense	58%	58%	58%	___	note[5]	note[3]
open-graded	90%	90%	not allowed	not allowed	not allowed	not allowed

[1] The final aggregate blend must conform to the specified gradation.

[2] No requirement for material taken from within the project limits. For material supplied from a source outside the project limits:

- LA wear maximum of 50 percent loss, by weight.
- Freeze thaw maximum of 42 percent loss, by weight.

[3] Required as specified for the individual component materials defined in columns 2 - 6 of the table before blending.

[4] For base placed between old and new pavements, use crushed stone, crushed gravel, or crushed concrete with a plasticity index of 3 or less.

[5] >=75 percent by count of non-asphalt coated particles.

[6] as modified in CMM 8-60.

450.2.2 Aggregate Sampling and Testing

Replace paragraph one with the following effective with the December 2019 letting:

(1) The department and the contractor will sample and test according to the following methods, except as revised with the engineer's approval:

Sampling aggregates	AASHTO T2
Material finer than No. 200 sieve	AASHTO T11
Sieve analysis of aggregates	AASHTO T27
Mechanical analysis of extracted aggregate	AASHTO T30
Sieve analysis of mineral filler	AASHTO T37
Los Angeles abrasion of coarse aggregate	AASHTO T96
Freeze-thaw soundness of coarse aggregate[1]	AASHTO T103
Sodium sulfate soundness of aggregates (R-4, 5 cycles)	AASHTO T104
Extraction of bitumen	AASHTO T164

[1] As modified in CMM 8-60.2.

450.3.2.6.3 Compaction Roller Pattern Determined by Growth Curve

Add 450.3.2.6.3 as a new subsection effective with the December 2019 letting:

450.3.2.6.3 Compaction Roller Pattern Determined by Growth Curve

(1) Compact asphaltic mixture using the roller pattern established during construction of a control strip. Use 2 or more rollers per paver if placing more than 165 tons per hour.

(2) On the first day of production, construct a control strip under the direct observation of department personnel. After compacting the control strip with a minimum of 3 passes, mark the gauge outline and take a one-minute wet density measurement using a nuclear density gauge in back scatter mode at a single location. Take a density measurement at the same location after each subsequent pass. Continue compacting and testing until the increase in density is less than 1 pcf for 3 consecutive passes. Submit the final roller pattern to the engineer in writing. Once the roller pattern is established do not change the pattern or decrease the number, type, or weight of rollers without the engineer's written approval.

(3) After establishing the roller pattern, and under the direct observation of the engineer, cut at least one 4-inch diameter or larger core from the control strip density gauge outline. Prepare cores and determine density according to AASHTO T166. Dry cores after testing. Fill core holes and obtain engineer approval before opening to traffic. The department will maintain custody of cores throughout the entire sampling and testing process. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing.

450.3.2.8 Jointing

Replace paragraph three with the following effective with the December 2019 letting:

(3) Construct notched wedge longitudinal joints for mainline paving of HMA layers 1.75 inches or greater. Extend the wedge beyond the normal lane width as the plans show or as the engineer directs.

Replace paragraph five with the following effective with the December 2019 letting:

(5) Construct the wedge for each layer using an engineer-approved strike-off device that will provide a uniform slope and will not restrict the main screed. Shape and compact the wedge with a weighted steel side roller wheel or vibratory plate compactor the same width as the wedge. Apply a tack coat to the wedge surface and both notches before placing the adjacent lane.

(6) Clean longitudinal and transverse joints coated with dust and, if necessary, paint with hot asphaltic material, a cutback, or emulsified asphalt to ensure a tightly bonded, sealed joint.

455.2.5 Tack Coat

Replace paragraph one with the following effective with the December 2019 letting:

(1) Under the Tack Coat bid item, furnish type SS-1h, CSS-1h, QS-1h, CQS-1h, or modified emulsified asphalt with an "h" suffix, unless the contract specifies otherwise.

460.2.2.3 Aggregate Gradation Master Range

Replace paragraph one with the following effective with the December 2019 letting:

(1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

SIEVE	PERCENT PASSING DESIGNATED SIEVES							
	NOMINAL SIZE							
	No. 1 (37.5 mm)	No. 2 (25.0 mm)	No.3 (19.0 mm)	No. 4 (12.5 mm)	No. 5 (9.5 mm)	No. 6 (4.75 mm)	SMA No. 4 (12.5 mm)	SMA No. 5 (9.5 mm)
50.0-mm	100							
37.5-mm	90 - 100	100						
25.0-mm	90 max	90 - 100	100					
19.0-mm	___	90 max	90 - 100	100			100	
12.5-mm	___	___	90 max	90 - 100	100		90 - 97	100
9.5-mm	___	___	___	90 max	90 - 100	100	58 - 80	90 - 100
4.75-mm	___	___	___	___	90 max	90 - 100	25 - 35	35 - 45
2.36-mm	15 - 41	19 - 45	23 - 49	28 - 58	32 - 67	90 max	15 - 25	18 - 28
1.18-mm	___	___	___	___	___	30 - 55	___	___
0.60-mm	___	___	___	___	___	___	18 max	18 max
0.075-mm	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	6.0 - 13.0	8.0 - 11.0	8.0 - 12.0
% VMA	11.0 min	12.0 min	13.0 min	14.0 min[1]	15.0 min[2]	16.0 - 17.5	16.0 min	17.0 min

[1] 14.5 for LT and MT mixes.

[2] 15.5 for LT and MT mixes.

460.2.7 HMA Mixture Design

Replace paragraph one with the following effective with the December 2019 letting:

(1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to CMM 8-66 and conforming to the requirements of table 460-1 and table 460-2. Ensure that SMA mixture designs adhere to AASHTO R 46 and AASHTO M 325 in addition to the required test procedures outlined in CMM 8-66 table 1 and CMM 8-66 table 2. Determine the specific gravity of fines or super fines used as a mineral filler or additional stabilizer in SMA designs according to AASHTO T 100. The values listed are design limits; production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to CMM 8-66.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	LT	MT	HT	SMA
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	35
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103 as modified in CMM 8-60.2) (specified counties, max % loss)	18	18	18	18
Fractured Faces (ASTM D5821 as modified in CMM 860) (one face/2 face, % by count)	65/___	75 / 60	98 / 90	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40[1]	43[1]	45	45
Sand Equivalency (AASHTO T176, min)	40	40[2]	45	50
Clay Lumps and Friable Particle in Aggregate (AASHTO T112)	<= 1%	<= 1%	<= 1%	<= 1%
Plasticity Index of Material Added to Mix Design as Mineral Filler (AASHTO T89/90)	<= 4	<= 4	<= 4	<= 4
Gyratory Compaction				
Gyrations for Nini	6	7	8	7
Gyrations for Ndes	40	75	100	65
Gyrations for Nmax	60	115	160	100
Air Voids, %Va (%Gmm Ndes)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.5 (95.5)
% Gmm Nini	<= 91.5[3]	<= 89.0[3]	<= 89.0	___
% Gmm Nmax	<= 98.0	<= 98.0	<= 98.0	<= 98.0
Dust to Binder Ratio[4] (% passing 0.075/Pbe)	0.6 - 1.2[5]	0.6 - 1.2[5]	0.6 - 1.2[5]	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80[6] [8]	65 - 75[6] [7] [9]	65 - 75[6] [7] [9]	70 - 80
Tensile Strength Ratio (TSR) (AASHTO T283)[10] [11]				
no antistripping additive	0.75 min	0.75 min	0.75 min	0.80 min
with antistripping additive	0.80 min	0.80 min	0.80 min	0.80 min
Draindown (AASHTO T305) (%)	___	___	___	<= 0.30
Minimum Effective Asphalt Content, Pbe (%)	___	___	___	5.5

[1] For No 6 (4.75 mm) nominal maximum size mixes, the specified fine aggregate angularity is 43 for LT and 45 MT mixes.

[2] For No 6 (4.75 mm) nominal maximum size mixes, the specified sand equivalency is 43 for MT mixes.

[3] The percent maximum density at initial compaction is only a guideline.

[4] For a gradation that passes below the boundaries of the caution zone (ref. AASHTO M323), the dust to binder ratio limits are 0.6 - 1.6.

[5] For No 6 (4.75 mm) nominal maximum size mixes, the specified dust to binder ratio limits are 1.0 - 2.0 for LT mixes and 1.5 - 2.0 for MT and HT mixes.

[6] For No. 6 (4.75mm) nominal maximum size mixes, the specified VFB is 67 - 79 percent for LT mixes and 66 - 77 percent for MT and HT mixes.

[7] For No. 5 (9.5mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76 percent.

[8] For No. 2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[9] For No. 1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[10] WisDOT eliminates freeze-thaw conditioning cycles from the TSR test procedure.

[11] Run TSR at asphalt content corresponding to 3.0% air void regressed design, or 4.5% air void design for SMA, using distilled water for testing.

460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater

Replace paragraph four with the following effective with the December 2019 letting:

(4) Use the test methods identified below, or other methods the engineer approves, to perform the following tests at the frequency indicated:

Blended aggregate gradations:

Drum plants:

- Field extraction by ignition oven according to AASHTO T308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T-164 method A or B; or automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1. Gradation of resulting aggregate sample determined according to AASHTO T30.
- Belt samples, optional for virgin mixtures, obtained from stopped belt or from the belt discharge using an engineer-approved sampling device and performed according to AASHTO T11 and T27.

Batch plants:

- Field extraction by ignition oven according to AASHTO T308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T-164 method A or B; or automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1. Gradation of resulting aggregate sample determined according to AASHTO T30.

Asphalt content (AC) in percent:

AC by ignition oven according to AASHTO T308 (CMM 8-36.6.3.6), by chemical extraction according to AASHTO T-164 method A or B; or by automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1. Gradation of resulting aggregate sample determined according to AASHTO T30.

Bulk specific gravity of the compacted mixture according to AASHTO T166.

Maximum specific gravity according to AASHTO T209.

Air voids (Va) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

460.2.8.2.1.4.2 Control Charts

Replace paragraph one with the following effective with the December 2019 letting:

(1) Maintain standardized control charts at the laboratory. Record contractor test results on the charts the same day as testing. Record data on the standardized control charts as follows:

- Blended aggregate gradation tests in percent passing. Of the following, plot sieves required in table 460-1: 37.5-mm, 25.0-mm, 19.0-mm, 12.5-mm, 9.5-mm, 4.75-mm, 2.36-mm, 1.18-mm, 0.60-mm, and 0.075-mm.
- Asphalt material content in percent.
- Air voids in percent.
- VMA in percent.

(2) Plot both the individual test point and the running average of the last 4 data points on each chart. Show QC data in black with the running average in red. Draw the warning limits with a dashed green line and the JMF limits with a dashed red line. The contractor may use computer generated black-and-white printouts with a legend that clearly identifies the specified color-coded components.

460.2.8.2.1.5 Control Limits

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

ITEM	JMF LIMITS	WARNING LIMITS
Percent passing given sieve:		
37.5-mm	+/- 6.0	+/- 4.5
25.0-mm	+/- 6.0	+/- 4.5
19.0-mm	+/- 5.5	+/- 4.0
12.5-mm	+/- 5.5	+/- 4.0
9.5-mm	+/- 5.5	+/- 4.0
4.75-mm	+/- 5.0	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
1.18-mm	+/- 4.0	+/- 3.0
0.60-mm	+/- 4.0	+/- 3.0
0.075-mm	+/- 2.0	+/- 1.5
Asphaltic content in percent	- 0.3	- 0.2
Air voids in percent[1]	+1.3/-1.0	+1.0/-0.7
VMA in percent[2]	- 0.5	- 0.2

[1] For SMA, JMF limits are +/-1.3 and warning limits are +/-1.0.

[2] For No. 6 (4.75mm) mixes, JMF limits are +/- 0.5 and warning limits are +/- 0.2.

460.3.2 Thickness

Replace paragraph one with the following effective with the December 2019 letting:

(1) Provide the plan thickness for lower and upper layers limited as follows:

NOMINAL SIZE	MINIMUM LAYER THICKNESS (in inches)	MAX LOWER LAYER THICKNESS (in inches)	MAX UPPER LAYER THICKNESS (in inches)	MAX SINGLE LAYER THICKNESS[3] (in inches)
No. 1 (37.5 mm)	4.5	6	4.5	6
No. 2 (25.0 mm)	3.0	5	4	6
No. 3 (19.0 mm	2.25	4	3	5
No. 4 (12.5 mm)[1]	1.75	3[2]	2.5	4
No. 5 (9.5 mm)[1]	1.25	3[2]	2	3
No. 6 (4.75 mm)	0.75	1.25	1.25	1.25

[1] SMA mixtures use nominal size No. 4 (12.5 mm) or No. 5 (9.5 mm).

[2] SMA mixtures with nominal sizes of No. 4 (12.5 mm) and No. 5 (9.5 mm) have no maximum lower layer thickness specified.

[3] For use on cross-overs and shoulders.

(2) Place leveling layers using No. 4 (12.5 mm), No. 5 (9.5 mm), or No. 6 (4.75 mm) mixtures. Leveling layers may be thinner than the minimum lower layer thickness for the mixture used.

(3) Place wedging layers as the contract specifies or engineer directs. Wedging layers have no specified minimum or maximum thickness.

460.3.3.1 Minimum Required Density

Replace paragraph one with the following effective with the December 2019 letting:

(1) Compact No. 6 mixtures in lower layers as specified in 450.3.2.6.2 and in upper layers as specified in 450.3.2.6.3. For other HMA mixtures, compact all layers to the density table 460-3 specifies.

TABLE 460-3 MINIMUM REQUIRED DENSITY[1]

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		LT and MT	HT	SMA[5]
TRAFFIC LANES[2]	LOWER	93.0[3]	93.0[4]	___
	UPPER	93.0	93.0	93.0
SHOULDERS & APPURTENANCES	LOWER	91.0	91.0	___
	UPPER	92.0	92.0	92.0

[1] The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer will investigate the acceptability of that material according to CMM 8-15.11.

[2] Includes side roads, crossovers, turn lanes, ramps, parking lanes, bike lanes, and park-and-ride lots as defined by the contract plans.

[3] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

[4] Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

460.3.3.2 Pavement Density Determination

Replace paragraph three with the following effective with the December 2019 letting:

(3) A lot is defined in CMM 8-15 and placed within a single layer for each location and target maximum density category indicated in table 460-3. The lot density is the average of all samples taken for that lot. The department determines the number of tests per lot according to CMM 8-15.

460.5.2.1 General

Replace paragraph six with the following effective with the December 2019 letting:

(6) If during a QV dispute resolution investigation the department discovers unacceptable mixture defined by one or more of the following:

- Va less than 2.5 or greater than 6.5 percent for SMA, or for other mixes, less than 1.5 or greater than 5.0 percent.
- VMA more than 1.0 percent below the minimum or above the maximum specified in table 460-1.
- AC more than 0.5 % below the JMF target.

Remove and replace the material, or if the engineer allows the mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

501.2.5.5 Sampling and Testing

Replace paragraph one with the following effective with the December 2019 letting:

(1) Sample and test aggregates for concrete according to the following:

Sampling aggregates[1]	AASHTO T2
Lightweight pieces in aggregate	AASHTO T113
Material finer than No. 200 sieve[1]	AASHTO T11
Unit weight of aggregate	AASHTO T19
Organic impurities in sands	AASHTO T21
Sieve analysis of aggregates	AASHTO T27
Effect of organic impurities in fine aggregate	AASHTO T71
Los Angeles abrasion of coarse aggregate	AASHTO T96
Alkali Silica Reactivity of Aggregates	ASTM C1260
Alkali Silica Reactivity of Combinations of Cementitious Materials and Aggregates	ASTM C1567
Freeze-thaw soundness of coarse aggregate[1]	AASHTO T103
Sodium sulfate soundness of coarse aggregates (R-4, 5 cycles)	AASHTO T104
Specific gravity and absorption of fine aggregate	AASHTO T84
Specific gravity and absorption of coarse aggregate[1]	AASHTO T85
Flat & elongated pieces based on a 3:1 ratio[1]	ASTM D4791
Sampling fresh concrete	AASHTO R60
Making and curing concrete compressive strength test specimens	AASHTO T23
Compressive strength of molded concrete cylinders	AASHTO T22

[1] As modified in CMM 8-60.

505.2.2 Bar Steel Reinforcement

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conform to AASHTO M31, type S or type W.

505.2.3 High-Strength Bar Steel Reinforcement

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conform to AASHTO M31, grade 60, type S or type W.

505.2.4.1 General

Replace paragraph one with the following effective with the December 2019 letting:

(1) Conform to AASHTO M31, grade 60, type S or type W. Ensure that the coating is applied in a CRSI certified epoxy coating plant. Bend bars that require bending before coating, unless the fabricator can bend the bar without damaging the coating.

505.2.6.1 General

Replace paragraph one with the following effective with the December 2019 letting:

(1) For dowel bars and straight tie bars, there is no requirement for bend tests. Ensure that the bars are the specified diameter and length the plans show.

505.2.6.2.2 Solid Dowel Bars

Replace paragraph one with the following effective with the December 2019 letting:

(1) Furnish coated bars conforming to AASHTO M31 grade 40 or 60. Alternatively the contractor may furnish dowel bars conforming to AASHTO M227 grade 70-80. Coat in a plant certified by the Concrete Reinforcing Steel Institute with a thermosetting epoxy conforming to AASHTO M254, type B.

625.3.2 Processing Topsoil or Salvaged Topsoil

Delete paragraph four effective with the December 2019 letting.

701.3.1 General

Replace the entire text with the following effective with the December 2019 letting:

(1) Perform contract required QC tests for samples randomly located according to CMM 8-30. Use the test methods specified in table 701-1.

TABLE 701-1 TESTING AND CERTIFICATION STANDARDS

TEST	TEST STANDARD	MINIMUM REQUIRED CERTIFICATION (any one of the certifications listed for each test)
Random Sampling	CMM 8-30.9.2	Transportation Materials Sampling Technician (TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-GRADING)
Sampling Aggregates	AASHTO T2[1][4]	TMS, AGGTECT-1, ACT-AGG
Percent passing the No. 200 sieve	AASHTO T11[1]	AGGTEC-I, ACT-AGG
Fine and coarse aggregate gradation	AASHTO T27[1]	
Aggregate moisture content	AASHTO T255[1]	
Fractured faces	ASTM D5821[1]	
Liquid limit	AASHTO T89	Aggregate Testing for Transportation Systems (ATTS) GRADINGTEC-I, or ACT-GRADING
Plasticity index	AASHTO T90[3]	
Sampling freshly mixed concrete	AASHTO R60	PCCTEC-1 ACT-PCC
Air content of fresh concrete	AASHTO T152[2]	
Air void system of fresh concrete	AASHTO TP118[5]	
Concrete slump	AASHTO T119[2]	
Concrete temperature	ASTM C1064	
Making and curing concrete cylinders	AASHTO T23	
Moist curing for concrete cylinders	AASHTO M201	
Concrete compressive strength	AASHTO T22	Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)
Concrete flexural strength	AASHTO T97	
Profiling	—	PROFILER

[1] As modified in CMM 8-60.

[2] As modified in CMM 8-70.

[3] A plasticity check, if required under individual QMP provisions, may be performed by an AGGTEC-I in addition to the certifications listed for liquid limit and plasticity index tests.

[4] Plant personnel may operate equipment to obtain samples under the direct observation of a TMS or higher.

[5] Consolidate tests by rodding only.

715.2.1 General

Replace paragraph five with the following effective with the December 2019 letting:

(5) For new lab-qualified mixes, test the air void system of the proposed concrete mix. Include the SAM number as a part of the mix design submittal.

715.3.1.1 General

Replace paragraph two with the following effective with the December 2019 letting:

(2) Test the air void system at least once per lot and enter the SAM number in the MRS for information only. SAM testing is not required for the following:

- For lots with less than 4 sublots.
- High early strength (HES) concrete.
- Special high early strength (SHES) concrete.
- Concrete placed under the following bid items:
    - Concrete Pavement Approach Slab
    - Concrete Masonry Culverts
    - Concrete Masonry Retaining Walls
    - Steel Grid Floor Concrete Filled
    - Crash Cushions Permanent
    - Crash Cushions Permanent Low Maintenance
    - Crash Cushions Temporary

730.3.1 General

Replace paragraph three with the following effective with the December 2019 letting:

(3) Stockpile tests[1] can be used for multiple projects. If placement on a project does not begin within 120 calendar days after the date the stockpile sample was obtained, retest the stockpile before placement begins.

[1] Replace the stockpile test with an in-place production test for concrete pavement recycled and processed on-site; test on the first day of production.

730.3.2 Contractor QC Testing

Replace paragraph four with the following effective with the December 2019 letting:

(4) Submit test results to the engineer within one business day of obtaining the sample, except any aggregate classification with recycled asphalt may be submitted within two business days.

730.3.4.1 Contractor QC Testing

Replace the entire text with the following effective with the December 2019 letting:

(1) For small quantity contracts with <= 500 tons, submit 2 production tests or 1 stockpile test. Production tests are valid for 3 years from the date the production sample was obtained. Begin placement within 3 years of the date sampled.

(2) For small quantity contracts with <= 6000 tons and >= 500 tons, do the following:

1. Conduct one QC stockpile test before placement.
2. Submit 2 production tests or conduct 1 loadout test instead of placement tests. Production tests are valid for 3 years from the date the production sample was obtained; the first day of placement must be within 3 years of the date sampled.
3. If the actual quantity placed is more than 6000 tons, on the next day of placement perform one additional random QC test for each 3000 tons of overrun, or fraction thereof.

740.3.2 Contractor QC Testing

Replace paragraph three with the following effective with the December 2019 letting:

(3) Field-locate the beginning and ending points for each profile run. Measure the profiles of each standard and partial segment. Define primary segments starting at a project terminus and running contiguously along the mainline to the other project terminus. Define segments one wheel path wide and distinguished by length as follows:

1. Standard segments are 500 feet long.
2. Partial segments are less than 500 feet long.

Errata

614.3.6 Thrie Beam Structure Approach Retro Fits

Correct errata by deleting the galvanization reference already required under 614.3.1.

(2) Install posts and drill holes into existing thrie beam conforming to 614.3.2.

628.3.7 Mobilizations for Erosion Control

Correct errata by clarifying that mobilizations for erosion control include proceeding with the work.

(1) Move personnel, equipment, and materials to the project site and promptly proceed with construction of erosion control items at the stages the contract indicates or the engineer directs.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf

Effective January 2019 Letting ASP 9

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll or Labor Data Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at paul.ndon@dot.wi.gov. Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

Non-discrimination Provisions

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

https://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc

Proposal ID: 20191210026 Project(s): 1000-18-33

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	213.0100 Finishing Roadway (project) 01. 1000-18-33	1.000 EACH	_____._____	_____._____
0004	618.0100 Maintenance And Repair of Haul Roads (project) 01. 1000-18-33	1.000 EACH	_____._____	_____._____
0006	619.1000 Mobilization	1.000 EACH	_____._____	_____._____
0008	646.1005 Marking Line Paint 4-Inch	931,933.000 LF	_____._____	_____._____
0010	646.3005 Marking Line Paint 8-Inch	6,536.000 LF	_____._____	_____._____
0012	646.5005 Marking Arrow Paint	2.000 EACH	_____._____	_____._____
0014	646.5105 Marking Word Paint	2.000 EACH	_____._____	_____._____
0016	646.7105 Marking Diagonal Paint 12-Inch	588.000 LF	_____._____	_____._____
0018	649.0105 Temporary Marking Line Paint 4-Inch	310,547.000 LF	_____._____	_____._____
0020	649.0770 Temporary Marking Raised Pavement Marker Type II	6,550.000 EACH	_____._____	_____._____
0022	SPV.0060 Special 01. Traffic Control	1.000 EACH	_____._____	_____._____
0024	SPV.0125 Special 01. Sealing Asphaltic Pavement Cracks	50.600 MI	_____._____	_____._____
0026	SPV.0180 Special 01. Chip Seal	406,051.000 SY	_____._____	_____._____
0028	SPV.0180 Special 02. Scrub Seal	547,252.000 SY	_____._____	_____._____
0030	SPV.0180 Special 03. Fog Seal	953,303.000 SY	_____._____	_____._____

Section: 0001 Total: _____._____

Total Bid: _____._____

PLEASE ATTACH SCHEDULE OF ITEMS HERE